

REMARKS

A. General:

Claims 1-4, 6, 9, 11-13, 22, 24, 31, 33, and 38 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,393,562 to Breedlove (hereinafter referred to as "Breedlove"). For the reasons that follow, Applicants respectfully request reconsideration and allowance of claims 1-4, 6, 9, 11-13, 22, 24, 31, 33, and 38.

Claims 1, 3, 4, 8, 11, 12, 14, 15, 17-22, 27-29, 31, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,167,450 to Nukui et al. (hereinafter referred to as "Nukui") in view of Breedlove or U.S. Patent Application Publication No. 2002/0141945 to Foster et al. (hereinafter referred to as "Foster"). For the reasons that follow, Applicants respectfully request reconsideration and allowance of claims 1, 3, 4, 8, 11, 12, 14, 15, 17-22, 27-29, 31, and 35.

Claims 5, 7, 10, 23, 30, 32, 34, 36, and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nukui, Breedlove, Foster and further in view of U.S. Patent No. 5,311,477 to Bonne (hereinafter referred to as "Bonne"). For the reasons that follow, Applicants respectfully request reconsideration and allowance of claims 5, 7, 10, 23, 30, 32, 34, 36, and 37.

B. The Final Office Action indicates that claims 7 and 34 have been rejected and, yet, allowable provided that they are written in independent form.

The final office action dated August 6, 2007 indicates that claims 7 and 34 have been rejected for the first time under 35 U.S.C. § 103(a) as being unpatentable over Nukui, Breedlove, Foster and Bonne. Later, however, the office action indicates that claims 7 and 34 would be allowable provided that it was written in independent form. By way of the aforementioned amendments to the claims, Applicants have amended claim 7 so that it is in independent form. No fee is required for this extra independent claim, since previously there were only two independent claims in the application.

Since it is unclear in the final office action, Applicants respectfully request an indication in the advisory action as to whether claim 7 is allowable or rejected. In the previous non-final office action dated February 5, 2007 neither claim 7 nor claim 34 were rejected. Accordingly, should the Examiner contend that claim 7 or claim 34 has been rejected by way of the final office action of August 6, 2007, Applicants respectfully point out that such a rejection would constitute new grounds of rejection not necessitated by

Applicants' actions. Therefore, under the rules of the M.P.E.P. the finality of the last office action should be withdrawn if the Examiner maintains that either claim 7 or 34 are rejected. Alternatively, claim 7 should be deemed allowable.

C. The 35 U.S.C. § 102(b) of claims 1-4, 6, 9, 11-13, 22, 24, 31, 33, and 38 as being anticipated by Breedlove should be withdrawn.

- a. Breedlove does not teach “means to determine a temperature difference in a flowing substance upstream and downstream of the heating or cooling element” as recited in claim 1 or “determining a temperature difference in the flowing substance upstream and downstream of the heating or cooling element” as recited in claim 21.**

Claim 1 relates to a device for the characterization of a flowing substance, comprising “means to determine a temperature difference in the flowing substance upstream and downstream of the heating or cooling element”. Claim 21 relates to a method for the characterization of a flowing substance, comprising “determining a temperature difference in the flowing substance upstream and downstream of the heating or cooling element”. Accordingly, in both claim 1 and claim 21, there is a flowing substance and a temperature difference of this flowing substance is determined both upstream of a heating or cooling element and downstream of a heating or cooling element.

In contrast, Breedlove measures a temperature difference between two different substances. In particular, in Breedlove, a measurement of the “total heat rise between air-gas inputs prior to combustion and the heated exhaust products” occurs. Breedlove, Col. 2, ll. 55-59. Thus, in Breedlove, the thermocoupler 14 measures the temperature of one substance, i.e. a sample gas/air mixture, and the thermocoupler 13 measures the temperature of another substance, i.e. the combustion gases generated via the combustion of the sample gas/air mixture. Applicants submit that claim 1 clearly requires means to determine a temperature difference in a flowing substance, and not, as the Examiner contends, means to determine a temperature difference between two different substances, as is the case in Breedlove.

The tenuous nature of the Examiner's understanding is further evidenced by the fact that claim 1 further recites “evaluation means (70) for evaluating a characterising feature of the flowing substance” and claim 21 further recites “evaluating a characterizing feature of the flowing substance”. Clearly, under any reasonable understanding of claims 1 and 21, the term flowing substance in the preceding recitations, must be the same flowing

substance for which a temperature difference is determined upstream and downstream of the heating or cooling element.

With the foregoing in mind, according to the Examiner, the Wobbe index of Breedlove corresponds to “evaluation means (70) for evaluating a characterising feature of the flowing substance” as recited in claim 1 and “evaluating a characterizing feature of the flowing substance” as recited in claim 21. However, the Wobbe index is used to determine the thermal delivery of the sample gas in Breedlove. Breedlove, Col. 4, ln. 49 – Col. 5, ln. 10. Therefore, according to the Examiner, the term “flowing substance” in the context of “evaluation means (70) for evaluating a characterising feature of the flowing substance” and “evaluating a characterizing feature of the flowing substance” necessarily means the sample gas of Breedlove. As pointed out above, however, the temperature of the sample gas of Breedlove is not measured downstream of a heating or cooling element. In particular, as Breedlove explicitly teaches “[c]alorimeter 10 continuously burns the combustible gas sample supplied through sample line 17 in an environment of combustion-supporting gas, such as air, which is supplied ... several times in excess of the mass required for full oxidation of the sample gas. Breedlove, Col. 2, ll. 12-17.

Applicants submit that it is not appropriate for, on one hand, the Examiner to construe the term flowing substance as being the sample gas of Breedlove, as is the case when the Examiner contends that the Wobbe index of the sample gas corresponds to “evaluation means (70) for evaluating a characterising feature of the flowing substance” of claim 1 and “evaluating a characterizing feature of the flowing substance” of claim 21, and, then, on the other hand, to construe the term flowing substance as being substances that do not include the sample gas whatsoever, as is the case when the Examiner contends that the downstream measurement of the combustion gases in Breedlove corresponds to a downstream temperature measurement of the “flowing substance”.

As pointed out above, in both claims 1 and 21 a characterizing feature of a flowing substance, which has its temperature differential measured upstream and downstream of the heating and cooling element, is evaluated. In Breedlove, a temperature difference of the sample gas is not determined upstream and downstream from a heating or cooling component. Accordingly, for at least this reason, Applicants respectfully request

withdrawal of the 35 U.S.C. § 102(b) rejection of claims 1 and 21. Furthermore, since claims 2-4, 6, 9, 11-13, 22, 24, 31, 33, and 38 depend from claims 1 and 21, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of these claims for at least this same reason.

- b. Breedlove does not teach “evaluation means (70) for evaluating a characterising feature of the flowing substance comprising a function relating temperature differences measured on one or more calibration substances to one or more characterising features of the flowing substance” as recited in claim 1 or “comparing the measured temperature difference with corresponding temperature differences measured on one or more calibration substances for evaluating a characterising feature of the flowing substance” as recited in claim 21.**

Applicants previously pointed out that Breedlove does not teach or suggest an evaluation means or evaluating a characterizing feature of the flowing substance in the manner recited in claims 1 and 21. In response, according to the Examiner, Breedlove teaches “evaluating a characterizing feature (Wobbe index) of the flowing substance comprising a function (column 4, lines 20-73) relating temperature differences (T = absolute temperature), which clearly has to be measured on one or more calibration substances since absolute temperature, by definition, is temperature measured relative to absolute zero.” For at least the following reasons, Applicants respectfully request reconsideration.

The term “absolute temperature” is a measurement of the temperature of a substance that is expressed relative to absolute zero. Accordingly, the absolute temperature of a substance is expressed in Kelvins. The Kelvin scale is a thermodynamic (absolute) temperature scale where absolute zero — the coldest possible temperature — is zero kelvin (0 K). Applicants respectfully disagree that the absolute temperature of a substance “has to be measured on one or more calibration substances”, as the Examiner contends. Contrary to this assertion, it is well known that the “absolute temperature” of a substance is not required to be measured on one or more calibration substance. The absolute temperature for any substance can be determined quite simply by measuring the temperature of that substance in °C and then adding 273 to the °C measurement, thereby converting it to Kelvins or an “absolute temperature”. The significance of the fact that Breedlove mentions that T is expressed as the absolute temperature is that it teaches those skilled in the art that the temperature of the sample gas must be input in °K, rather than in

°F or °C for Wobbe index formula to generate an accurate output of thermal delivery for a sample gas. Therefore, Applicants submit that there is no basis for the conclusion that there is a requirement that a “calibration substance” be used to determine a substance’s absolute temperature.

Putting the foregoing issue aside, Breedlove further explicitly teaches that T, expressed in Kelvins or the absolute temperature, is the temperature of the “sample gas. Breedlove, Col. 4, ll. 68-70. While Breedlove, Col. 5, ll 1-10 appears to teach that a “sample gas of known chemical composition and a constant density can be used to calibrate” the calorimeter signal output 22, Breedlove is neither provided with evaluation means (70) for evaluating a characterising feature of the flowing substance comprising a function relating temperature differences measured on one or more calibration substances to one or more characterising features of the flowing substance” as recited in claim 1 nor does Breedlove compare “the measured temperature difference with corresponding temperature differences measured on one or more calibration substances for evaluating a characterising feature of the flowing substance” as recited in claim 21. Rather, when a sample gas of a known chemical composition and constant density is used, the thermal delivery output *h* of the known sample gas generated by the calorimeter, expressed in B.t.u. per cubic foot or pound, can be compared with the known thermal delivery of the known sample gas to calibrate or verify its accuracy. It is well known that B.t.u., or British thermal unit, is a unit of energy, not a unit of temperature. Therefore, in Breedlove a unit of energy, expressed in B.t.u. per cubic foot or pound, of a calibration substance, i.e. a sample gas of known composition and density, is used to calibrate the calorimeter.

For example, if a known sample gas is known to produce 2.0 B.t.u. per pound and the signal output *h* generated by the calorimeter indicates that the known sample gas only produces 1.0 B.t.u. per pound, this information can be used to produce a suitable calibration scale or chart. For example, where i) a known sample gas is known to produce 2.0 B.t.u., ii) the calorimeter signal output *h* indicates that the known sample gas only produces 1.0, and iii) an signal output *h* for an unknown sample gas indicates that it produces only 1.0 B.t.u., an actuated calibration scale or chart would then be used to

generate an accurate signal output h by multiplying the signal output h value for the unknown sample gas, in this case 1.0 B.t.u. by a calibration factor of 2.

Accordingly, Breedlove teaches that a characterizing feature, i.e. energy expressed in B.t.u per pound or cubic foot, of an unknown sample gas, can be determined by a function relating energy, and not temperature differences, measured on one or more calibration substances to one or more characterising features of the flowing substance. Therefore, Applicants respectfully submit that Breedlove fails to teach evaluation means or evaluating a characterizing feature of the flowing substance in the manner recited in claims 1 and 21. Accordingly, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of claims 1 and 21. Furthermore, since claims 2-4, 6, 9, 11-13, 22, 24, 31, 33, and 38 depend from claim 1 or 21, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of these claims for at least this same reason.

c. Breedlove does not teach “the function comprises a data-base or a calibration equation” as recited in claim 2.

According to the Examiner, Breedlove clearly discloses a calibration equation. However, as pointed out above, the calibration process referred to in Breedlove does not involve a function comprising a data-base or calibration equation relating temperature differences measured on one or more calibration substances to one or more characterizing features of the flowing substance. For at least this reason Applicants respectfully request reconsideration and withdrawal of the U.S.C. § 102(b) rejection of claim 2.

d. Breedlove does not teach all the elements recited in claims 4, 6, 13, 24, 33 and 36.

With respect to claim 4, Breedlove does not teach or suggest “wherein the flow measurement means (61) comprises a pressure measurement cell (90) for measuring a pressure difference over the temperature difference sensor (50).” According to the Examiner, the “differential pressure indicator 21” of Breedlove corresponds to “flow measurement means”; however, the differential pressure indicator 21 in Breedlove is located in the line 17 and clearly measures the differential pressure in the line. It does not measure a pressure difference over a temperature difference sensor, which the Examiner contends are the thermocouples 13, 14. In fact the location of the differential pressure indicator 21 renders this device incapable of determining a pressure difference over the

thermocouples 13, 14. Accordingly, for at least this reason, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of claim 4.

Furthermore, Breedlove does not teach or suggest “flow correction means (62) comprises a pressure difference control means (91) for maintaining a substantially constant pressure difference over the temperature difference sensor.” As previously pointed out, the entire purpose of the device in Breedlove is to vary the mass flow through the gas burner chamber 11 so that a consistent Btu per minute is generated regardless of the type of gas employed. This would necessarily prevent a constant pressure difference over the thermocouples 13, 14. Therefore, there is no teaching or suggestion in Breedlove to provide “flow correction means” as recited in claim 4. Accordingly, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of claim 4.

Similarly, Breedlove does not teach or suggest “the flow measurement means (61) comprises a mass flow sensor (110) measuring the mass flow through the temperature difference sensor (50) and the flow correction means (62) comprises a mass flow control means (91) for maintaining a substantially constant mass flow through the temperature difference sensor (50)”, as recited in claim 6, “the flow measurement means (61) comprises a pressure measurement cell (90) for measuring a pressure difference over the temperature difference sensor (50)”, as recited in claim 13, “the measured mass flow characteristic comprises a pressure difference over the heating-or cooling element and further comprising correcting the mass flow for a measured pressure difference variation to maintain a substantially constant pressure difference over the element” as recited in claim 22, “the flow measurement means (61) comprises a pressure measurement cell (90) for measuring a pressure difference over the temperature difference sensor (50) and the flow correction means (62) comprises a pressure difference control means (91) for maintaining a substantially constant pressure difference over the temperature difference sensor”, as recited in claim 31 and “the flow measurement means (61) comprises a pressure measurement cell (90) for measuring a pressure difference over the temperature difference sensor (50)” as recited in claim 36. Accordingly, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of claims 6, 13, 22, 31, and 36.

e. Breedlove does not teach all the elements recited in claims 9, 13, 36, and 38.

With respect to claims 9, 13, and 38, Breedlove does not teach or suggest “temperature correction means to correct for an absolute temperature variation in the flowing substance.” According to the Examiner Col. 3, ll. 33-65 teach such an element. However, this passage discusses variations in the B.t.u. output due to variations in the sample gas composition, density, and B.t.u. per pound or volume content. Breedlove teaches that the controller 38 of Breedlove responds to a change in the temperature differential and adjusts valve 16 in sample gas line 17 to vary the sample gas flow so as to restore the temperature differential to its operating value. Breedlove, Col. 3, ll. 44-48. In Breedlove, however, any deviation in the temperature of the sample gas would not effect the temperature differential in the gas burner chamber 11, since the overall temperature deviation in the combustion chamber would remain the same. For example, if the sample gas is at a lower temperature, then the temperature of the resulting combusted gases would be at a corresponding lower temperature, thus resulting in no net change in the temperature deviation. Accordingly, for at least this reason, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of claim 9, 13, 36, and 38. In any case, the controller of Breedlove does not correct for an absolute temperature variation in the sample gas.

f. Breedlove does not teach all the elements recited in claims 11, 12, and 36.

Claims 11 and 36 recite “a pressure correction means to correct for an absolute pressure variation in the flowing substance”. According to the Examiner the controller 38 of Breedlove corresponds to a pressure correction means as recited in claims 11 and 36. However, the controller 38 of Breedlove does not correct for an absolute pressure variation in the flowing substance. Breedlove teaches that the controller 38 of Breedlove responds to a change in the temperature differential and adjusts valve 16 in sample gas line 17 to vary the sample gas flow so as to restore the temperature differential to its operating value. Breedlove, Col. 3, ll. 44-48. Accordingly, for at least this reason, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of claims 11 and 36.

Claim 12 recites “the pressure correction means comprises a pressure control for maintaining a substantially constant absolute pressure in the flowing substance”. According to the Examiner the controller 38 of Breedlove corresponds to a pressure correction means as recited in claim 12. However, as previously pointed out the entire purpose of the controller 38 is to vary the sample gas flow so that a constant temperature differential is restored. This would necessarily entail varying the pressure of the flowing substance. Accordingly, for at least this reason, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of claim 12.

D. Nukui in combination with Breedlove and/or Foster fails to teach or suggest all the elements of claims 1, 3, 4, 8, 11, 12, 14, 15 and 17-22, 27-29, 31, and 35.

- a. Nukui fails to teach “means to determine a temperature difference in the flowing substance upstream and downstream of the heating or cooling element” as recited in claim 1 and “determining a temperature difference in the flowing substance upstream and downstream of the heating or cooling element” as recited in claim 21.**

Claim 1 recites “means to determine a temperature difference in the flowing substance upstream and downstream of the heating or cooling element”. Claim 21 relates to a method for the characterization of a flowing substance, comprising “determining a temperature difference in the flowing substance upstream and downstream of the heating or cooling element”. According to the Examiner, Nukui discloses all the elements of claims 1, 3, 4, 8, 11, 12, 14, 15, 17-22, 27-29, 31, and 35, except for “relating temperature differences measured on one or more calibration substances to one or more characterizing features of the flowing substance.” However, Applicants respectfully disagree that Nukui teaches all the other elements of claims 1 and 21. In particular, Nukui fails to teach determining a temperature difference in the flowing substance upstream and downstream of a heating or cooling component.

— According to the Examiner, Nukui discloses “a temperature difference sensor comprising a first measurement cell/thermostatic chamber 12 downstream of a heating unit and means for determining a temperature difference in the flowing substances upstream and downstream of the heating element (figure 4; column 5, lines 15-32; column 7, lines 16-21). Applicants respectfully point out that the thermostatic chamber 12 is not a temperature sensor. Rather, the thermostatic chamber 12 is a “heater” that is made of a material of high heat-conductivity, which is capable of maintaining a constant

temperature therein. Nukui, Col. 4, ll. 46-48. The thermostatic chamber 12 is “capable of quickly regulating the inner temperature to a constant value. Nukui, Col. 5, ll. 15-19. The thermostatic chamber 12 keeps the fuel gas temperature at the temperature T until the fuel gas flows into the laminar flow-type flow meter 5 through spiral tube 1a. Nukui, Col. 6, ll. 9-13. There simply is no teaching in Nukui that supports the Examiner’s assertion that the thermostatic chamber 12 is a temperature difference sensor. Furthermore, there is no other structure in Nukui that could be construed as a temperature difference sensor. Therefore, Applicants submit that Nukui fails to teach determining a temperature difference in the manner recited in claims 1 and 21. Furthermore, since claims 3, 4, 8, 11, 12, 14, 15 and 17-22, 27-29, 31, and 35 depend from claims 1 or 21, Applicants submit that they too are allowable for at least this reason.

With respect to the Examiner’s contention that figure 4; column 5, lines 15-32; column 7, lines 16-21 of Nukui teach means for determining a temperature difference in the flowing substances upstream and downstream of the heating element, Applicants respectfully disagree. Figure 4 shows only one device capable of sensing temperature. In particular the device of figure 4 is provided with a thermometer 11. This thermometer 11 by itself is simply incapable of measuring a temperature difference in a flowing substance. In Nukui, Column 5, lines 15-32 and column 7, lines 16-21, teach that the thermostatic chamber 12 regulates the inner temperature to a constant value, spirally wound tube 1a exchanges heat so as to regulate the temperature of the fuel gas, tube 1a is effective at eliminating undesirable distortion, thermal-type flow controller 8 is integrally composed of a bypass type thermal flowmeter 8a and a control valve 8B for regulating the output pressure of the thermal type flowmeter to a present value, and the measured values of the inflow pressure P1 and the differential pressure ΔP are input into a computer unit 10 which calculates the outlet pressure P2 from the input. It is unclear to Applicants how these passages could be construed to teach “means for determining a temperature difference in the flowing substances upstream and downstream of the heating element”. Applicants submit that they do not; and, therefore, for at least this reason, Applicants submit that Nukui fails to teach determining a temperature difference in the manner recited in claims 1 and 21. Furthermore, since claims 3, 4, 8, 11, 12, 14, 15 and

17-22, 27-29, 31, and 35 depend from claims 1 or 21, Applicants submit that they to are allowable for at least this reason.

b. The teaching of Breedlove and/or Foster fail to teach an evaluation means or evaluating a characterizing feature of the flowing substance in the manner recited in claims 1 and 21.

With respect to the Examiner's contention that Breedlove teaches what is admittedly missing from Nukui, namely that Breedlove teaches an evaluation means or evaluating a characterizing feature of the flowing substance in the manner recited in claims 1 and 21, as pointed out above in section C, subsection b, the Wobbe index equation does not involve temperature differences measured on one or more calibration substances. Accordingly, Applicants submit that Nukui in combination with Breedlove fails to teach an evaluation means or evaluating a characterizing feature of the flowing substance in the manner recited in claims 1 and 21. Furthermore, since claims 3, 4, 8, 11, 12, 14, 15 and 17-22, 27-29, 31, and 35 depend from claims 1 or 21, Applicants submit that they to are allowable for at least this reason.

With respect to the Examiner's combination of Nukui with Foster for purposes of teaching an evaluation means or evaluating a characterizing feature of the flowing substance in the manner recited in claims 1 and 21, while Foster may teach calibrating a device using a calibration gas, what claims 1 and 21 actually respectively recite are "evaluation means (70) for evaluating a characterising feature of the flowing substance comprising a function relating temperature differences measured on one or more calibration substances to one or more characterising features of the flowing substance" and "comparing the measured temperature difference with corresponding temperature differences measured on one or more calibration substances for evaluating a characterising feature of the flowing substance. Claims 1 and 21 do not recite "calibrate a device with a calibration gas." The calibration process taught in Foster does not teach an evaluation means or evaluating a characterizing feature of the flowing substance in the manner recited in claims 1 and 21. Accordingly, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1, 3, 4, 8, 11, 12, 14, 15 and 17-22, 27-29, 31, and 35.

c. Nukui, whether alone or in combination with Breedlove and/or Foster does not teach all the elements recited in claims 4, 22, and 31.

With respect to claim 4, Nukui does not teach or suggest “wherein the flow measurement means (61) comprises a pressure measurement cell (90) for measuring a pressure difference over the temperature difference sensor (50).” According to the Examiner, elements 4, 4a, or 6 of Nukui measure a pressure difference over a temperature difference sensor. However, the only temperature sensor in Nukui is a thermometer 11. As pointed out above, the thermometer 11 may measure a temperature, but cannot by itself measure a temperature difference upstream and downstream of a heating or cooling element. Instead, Nukui teaches that it measures the temperature of the fuel gas flowing into the laminar flow-type flowmeter.

Furthermore, elements 4, 4a, or 6 of Nukui do not measure a pressure difference over any temperature difference sensor. Despite the fact that Nukui does not even possess a temperature difference sensor, the Examiner contends that column 4, lines 40-58 teach “a pressure measurement cell (90) for measuring a pressure difference over the temperature difference sensor (50)”. Applicants submit that column 4, lines 40-58 say nothing to this effect. Rather, column 4, lines 40-58 teach a reducing valve 2, a filter 3, pressure gauges 4, 4a, thermostatic chamber 12, laminar flow-type flow meter 5, thermal-type flowmeter 8, flow regulating device 9, thermal-type flow control 8. Column 4, lines 40-58 does not teach or suggest that any of these structures measure a pressure difference over a temperature difference sensor. Accordingly, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claim 4.

Similarly, Nukui, whether alone or in combination with Breedlove and/or Foster does not teach or suggest “the measured mass flow characteristic comprises a pressure difference over the heating-or cooling element” as recited in claim 22 or “a pressure measurement cell (90) for measuring a pressure difference over the temperature difference sensor (50)” as recited in claim 31. Accordingly, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claims 22 and 33.

- d. Nukui, whether alone or in combination with Breedlove and/or Foster does not teach “a mass flow sensor (110) measuring the mass flow through the temperature difference sensor (50)” or “the flow**

correction means (62) comprises a mass flow control means (91) for maintaining a substantially constant mass flow through the temperature difference sensor (50)" as recited in claim 6.

Claim 6 recites "the flow measurement means (61) comprises a mass flow sensor (110) measuring the mass flow through the temperature difference sensor (50)" According to the Examiner, elements 80e, 80f measure the mass flow through a temperature difference sensor. However, elements 80e and 80f are bridges that measure the mass flow through the bypass pipe 82. Nukui, Col. 5, ll. 45-51. The bypass pipe 82 is not provided with a temperature difference sensor. In fact, as pointed out in the preceding section, there is no temperature difference sensor on the device of Nukui. Therefore Nukui cannot teach or suggest "the flow correction means (62) comprises a mass flow control means (91) for maintaining a substantially constant mass flow through the temperature difference sensor (50)." Accordingly, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claim 6.

e. Nukui, whether alone or in combination with Breedlove and/or Foster does not teach all the elements of claims 8 and 35.

As pointed out above, Nukui fails to teach a temperature difference sensor, therefore Nukui cannot teach or suggest a mass flow sensor that measures mass flow through a temperature difference sensor, where the mass flow sensor comprises a coriolis, ultrasonic or sonic nozzle mass flow sensor. Accordingly, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claims 8 and 35.

E. The rejections of claims 5, 7, 10, 23, 32, 36, 30, and 37 using Nukui, Breedlove, Foster and Bonner should be withdrawn.

According to the Examiner, claims 5, 7, 10, 23, 32, 36, 30, and 37 are rejected over the combination of Nukui, Breedlove, and Foster as applied to claims 1 and 21 and further in view of Bonner. However, Applicants have previously demonstrated that the rejection of claims 1 and 21 based upon the teaching of Nukui, Breedlove, and Foster is not appropriate. Therefore, for at least these same reasons, the rejection of claims 5, 7, 10, 23, 32, 36, 30, and 37 based on Nukui, Breedlove, Foster, and Bonner should be withdrawn.

F. Conclusion

Applicants submit that the subject matter of the present application is novel, nonobvious, and useful. Accordingly, Applicants respectfully request that the rejections and objections be withdrawn and that the present application issue as early as possible.

Dated: September 27, 2007

/Michael Pruden/

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